

www.iRiver.com



Instruction Manual

MP3 PLAYER/FM TUNER Model ifp-300 Series





Firmware Upgradable

Thank you for your purchase. Please read this manual carefully before using your new player.

www.iRiver.com

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

NOTE: THE MANUFACTURER IS NOT RESPONSIBLE FOR ANY RADIO OR TV INTERFERENCE CAUSED BY UNAUTHORIZED MODIFICATIONS TO THIS EQUIPMENT. SUCH MODIFICATIONS COULD VOID THE USER'S AUTHORITY TO OPERATE THE EQUIPMENT.

- URL: www.iRiver.com
- Find information on our company, products, and customer and technical
- Update your player with firmware downloads. Firmware upgrades offer support for new CODECS and deliver new product features.
- Consult the product FAQ.
- ▶ Register your iRiver product online so that our Customer Service is able to provide support as efficiently as possible.

iRiver Limited does not assume any responsibility for errors or omissions in this document or make any commitment to update the information contained herein.

iRiver is a registered trademark of iRiver Limited in the Republic of Korea and /or other countries and is used under license. Microsoft Windows Media and the Windows Logo are trademarks or registered trademarks of Microsoft Corporation in the United States and /or other countries. All other brand and product names are trademarks of their respective companies or organization. All other product names may be trademarks of the companies with which they are associated.

1999-2003 iRiver Limited. All right reserved.

- Unique Design
- Multi-Codec Player
- : Supports MP3, WMA, ASF formats.
- Firmware Upgrade
 - : Provides the latest updated features via firmware upgrade.
- Graphic LCD supporting Multiple Languages
 : iFP-300 Series comes with graphic LCD which can support multiple languages
- FM Function (not supported on iFP-340):

You can easily listen to FM stations and set your favorite stations by using Auto Preset and Frequency Memory functions.

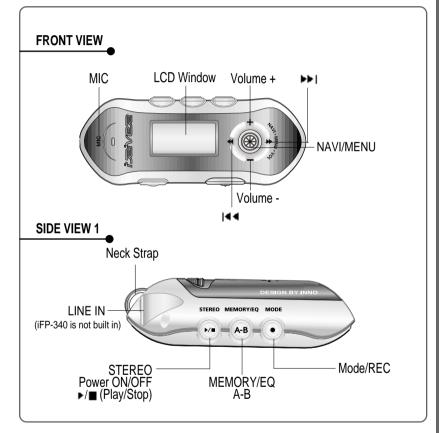
- 6 Preset EQ: Normal, Rock, Jazz, Classic, U Bass, Metal
- Xtreme FQ

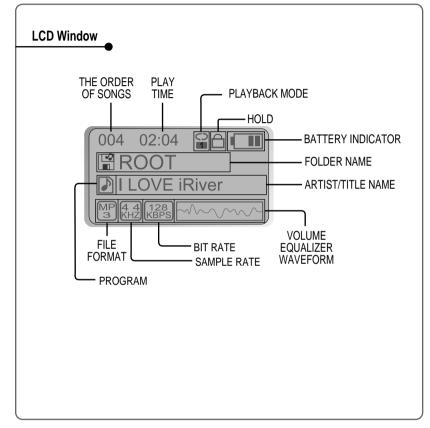
Make your EQ as the way you like by adjusting five frequency zones. Each frequency zone's bandwidth can be set from -12dB to +12dB with 3 dB stepping.

- © GUI (Graphic User Interface) MENU SYSTEM
- Easy Navigation

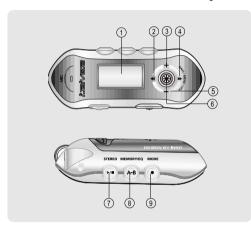
The simple navigation makes it easy to find any song.

- Supports 8 levels of subfolders, 500 folders total and up to 1500 files at one time.
- Create your own playlists.
- Support MP3 Direct Encoding (not supported on iFP-340): 11.025KHz ~44.1KHz, 8Kbps ~ 320Kbps
- Record FM Radio, Voice, or line-in from another device Voice record level is automatically controlled by AGC function. (iFP-340 feature only voice record)
- Convenient neck strap.





★ iFP-340 doesn't feature FM Tuner or Line-in recording.



- 1. LCD window.
- 2. To select the previous music for MP3 or station for FM.
- 3. To increase volume.
- 4. To select the next music for MP3 or station for FM.
- 5. To decrease volume.
- 6. To select NAVI/MENU function.
- 7. To start or stop playback for MP3, to select mode for FM or turn off.
- To select EQ mode, A-B repeat or memory stations for FM automatically.
- EQ: NORMAL → ROCK → JAZZ → CLASSIC → U BASS → METAL → Xtrm EQ
- 9. To select function, playback mode, or record/stop recording.



To adjust the volume

Press + on volume button to increase volume
and press – on button to decrease volume.



Selecting FM Mode when listening FM :



NAVIGATION



Press NAVI/MENU button and find the desired track by pressing the VOL + or VOL – button. To select the track, press the NAVI/MENU button, provided the PLAY/STOP button.

To move to the upper folder, push the $| \blacktriangleleft |$ switch. If there is no upper folder, NAVIGATION stops.

MENU

A long press of the **NAVI/MENU** button will enter the menu system.



- ☐ Scrolling between menus: Press | and | ▶ ₪.
- 2 Exit: Push the VOL switch down or hold down the NAVI/MENU button.
- Select Function: Press the NAVI/MENU button.

MODE

MODE



While an MP3 file is playing, press MODE/REC to activate selected modes, such as Repeat or Shuffle.

Press and hold the MODE/REC button: You can select MP3 or FM or voice or Line-in recording functions (Play mode is automatically activated when MP3 is selected).



★ iFP-340 doesn't feature FM Tuner or Line-in recording.

DELETING FILES ON THE PLAYER

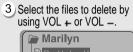
1) Stop playback.



2 Click the "NAVI/MENU" button.



4 Click the "MODE" button.
"FILE DELETE ARE YOU SURE?" is displayed on the LCD. Select "YES" by using | a and | to delete. Then click NAVI/MENU button.







DELETING FOLDERS ON THE PLAYER

1) Stop playback.



2 Click the "NAVI/MENU" button.



3 Select the folder to delete. Music



4 Click the "MODE" button.
"FOLDER DELETE ARE YOU SURE?" is displayed on the LCD. Select "YES" by using | and | to delete. Then click NAVI/MENU button.



NOTE You can only delete a blank folder. In order to delete a folder, you must first delete the files in the folder.

 Insert the Installation CD into the CD-ROM drive. The following screen appears after inserting the CD.



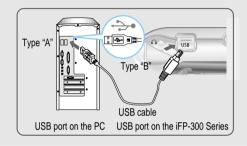
- If installation doesn't automatically begin, execute the "setup.exe" file of the installation CD. The installation program will begin.
- The installation CD contains the following contents:
- Device Driver
- iRiver Music Manager
- The player can store MP3 files or files of any type. You can upload files, other than music (MP3, WMA, ASF), to the PC using the iRiver Music Manager
- Program. Download latest versions of drivers and iRiver Music Manager at www.iRiver.com
- The users having O/S more than Microsoft Windows 2000 are recommended to log in as Administrator privileges and install iRiver Music Manager.

System Requirements

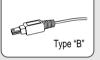
- Pentium 133MHz or faster
- USB port
- Window 98SE / ME / 2000 / XP
- CD-ROM drive
- 10MB free hard disk space

To install "New hardware"

Connect the USB cable (provided) to the USB port of your computer.







Turn on the player, remove the protective cover of USB port, and connect the USB cable.



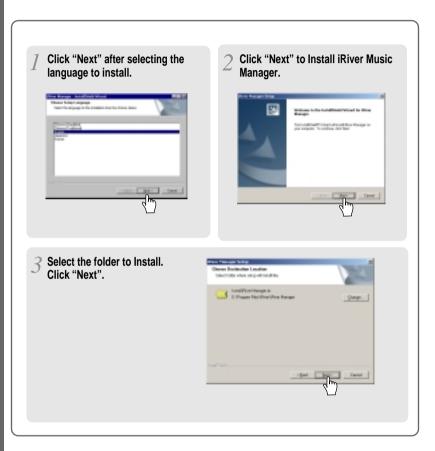
→ "USB CONNECTED" will appear on the LCD of the player.

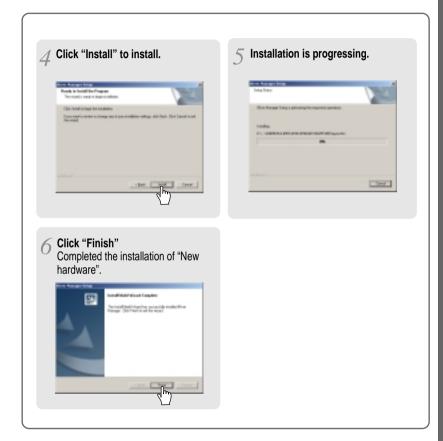


NOTE Connect the USB cable to the PC after playback stops to avoid errors.

SOFTWARE INSTALLATION







When installing in Windows XP



After installation of Manager that is included in the install CD and connect your player with PC, the pop-up window like left image comes up. Select 'Install the software automatically (Recommended)' and click 'Next'.

When the warning screen like below image pops up, please click 'Continue Anyway'. (The CD comes with iRiver player is iRiver's official software to ensure the safe installation of product.)



Click 'Finish' will complete the new hardware installation.



★ O/S with windows 98 se, windows me, windows 2000 do not have to install device driver with separate.

1. Basic operation

Double click the iRiver Music Manager icon on the PC to start the Manager program.



2 IRiver Music Manager version installed is displayed.



▼ Initial activated iRiver Music Manager window



17

PLAYER & FILE TRANSFERRING

2. PLAYER & FILE TRANSFERRING

1) Downloading from the PC
Activate the Manager program after connecting the USB cable between the player and PC.

Select the folders or files on the PC to transfer to the player.





3 Click the "Download" icon or select "Download" in the Transfer menu to transfer the selected files to the player.







CAUTION

- Files with a name over 127 English characters (Korean: 63 characters) will not transfer.
 Files over 511 English characters (including path name and file names) will not transfer.
 The ROOT folder is limited to 1024 (iFP-340: 256) files and folders total. Subfolders do not have a limit to the number of files.

PLAYER & FILE TRANSFERRING

2) Uploading to the PCActivate the Manager program after connecting the USB cable between the player and PC.

Select files or folders in the player to save.



Select the destination folder on the PC.



3 Click the "Upload" icon or select "Upload" in the Transfer menu to transfer the selected files from the player to your PC.



Upload is processing.



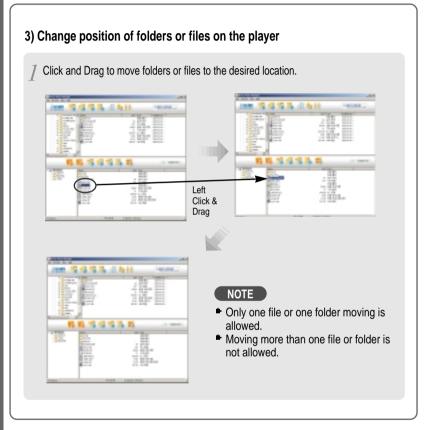
5 Upload is completed.

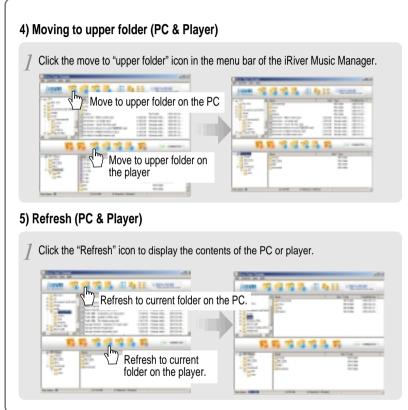


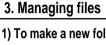
CAUTION

- Music Files (MP3, WMA, ASF) can be uploaded from the player to the PC in accordance with current copyright laws.
- You can upload recorded FM, Line in, or Voice files to your PC as well as any data files.
 Music files (MP3, WMA, ASF) may not be transferred to your PC from the player.

PLAYER & FILE TRANSFERRING







1) To make a new folder on the player

Click the "New Folder" icon or select "File-New folder" in the file menu to make a new folder.



New folder is created.



Type the name in the new folder.



2) Making new folders on the PC

Click the "New Folder" icon to make a new folder.

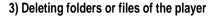


New folder is created.



3 Type the name in the new folder.





After starting the "Manager" program, select the files or folders to delete.



2 Click the "Delete" icon or the menu option "File-Delete".



3 Click "Yes".



4 Files are deleted.



4) Deleting folders or files of the PC

After starting the "Manager" program, select the files or folders to delete.



Click the "Delete" icon.



3 Click "Yes".



NOTE

 Note this will delete files permanently from your hard drive. Use with caution. Delete is completed.



4. Additional functions

1) Upgrading the firmware

Download the latest Firmware from our website.
Unzip it. Execute the "*** .EXE" file. IFP-3XXT.HEX or IFP-3XX.HEX (for iFP-340 only) file is created.

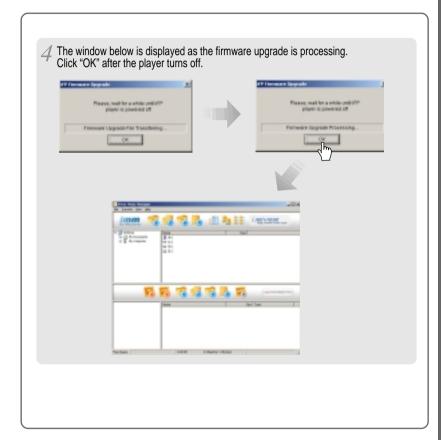


2 Click the "Transfer-Firmware Upgrade" menu option.



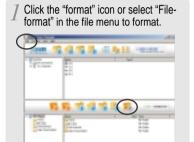
3 Locate and select the IFP-3XXT.HEX or IFP-3XX.HEX file then click Open.





2) Format

Format will erase all files in your player memory.





 ${\it 3}$ The alert below is displayed. Click "Yes" to initialize.



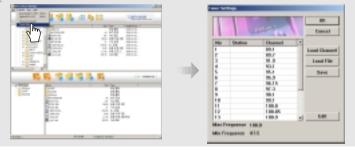


★ iFP-340 doesn't feature FM Tuner or Line-in recording.

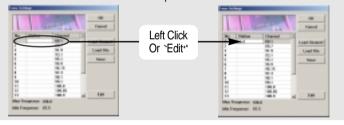
3) Modifying the Radio Stations

You can modify the FM Radio stations with the iRiver Music Manager.

// Select "Transfer-Tuner Setting" in the menu to modify radio channels.



You can edit the list of your FM stations.
You can also load and save different preset files.



NOTE The station name cannot exceed 6 characters including alphabet and number.

Listening to music



Put the HOLD switch to "OFF".

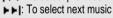


Press the PLAY/STOP button to turn on the player.
Press it again to play.



To select music

I◀ ◀: To select previous music



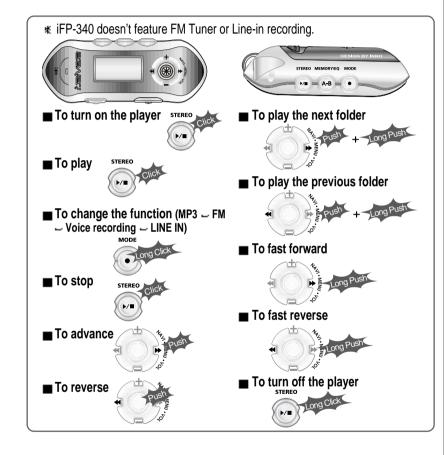


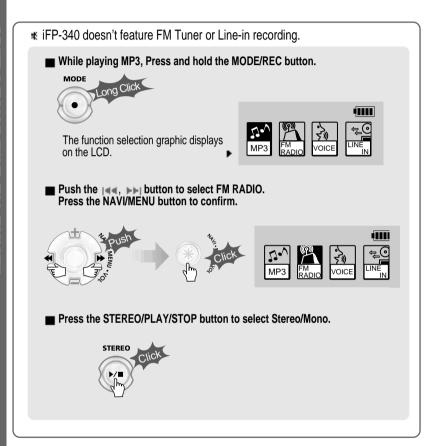
5 To adjust the volume

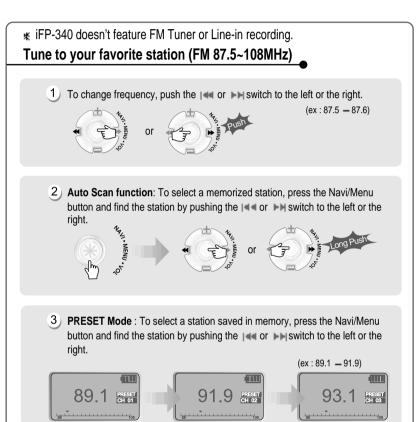
- + : To increase volume
- : To decrease volume



- When "Hold" is ON, the buttons on the
- When Hold is ON, the buttons on the player will not function.
 In case of stop status of MP3 or standby status of Voice recording, the player automatically turns off according to the setting of "STOP POWER OFF" on the MENU.(Refer to page 58)

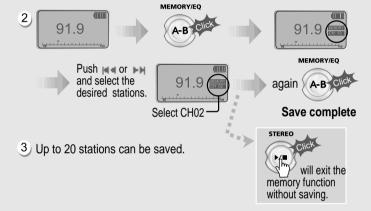






Memory Function (Save stations)

1) Select the station by pushing the | < or >> switch to the left or the right.



4 Auto memory function:
Automatically select stations
and save them in sequential
order.

(It only activates while the player is not in PRESET mode)

NOTE Auto memory may not work within weak transmission areas.

★ iFP-340 doesn't feature FM Tuner or Line-in recording.

Memory delete function (Delete saved stations)

- 1) Select the station to be deleted at preset mode
- 2) Press and hold the memory button.



- The next station will appear when station delete is completed.

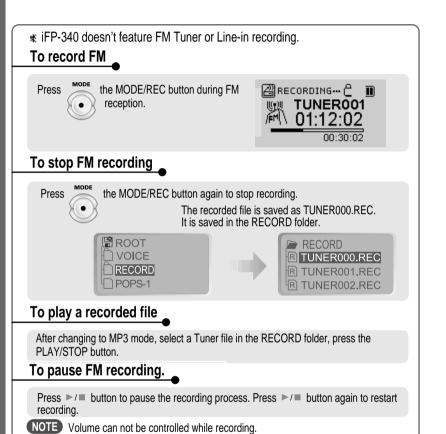
Push the memory button if you also want to delete the next station.

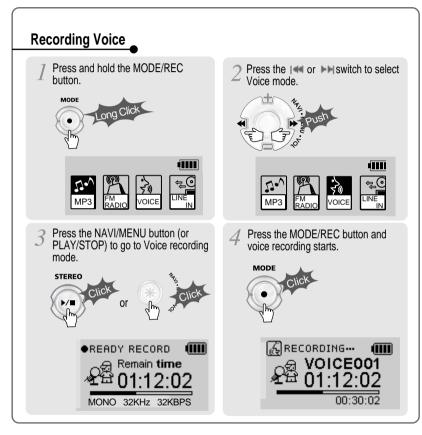
NOTE

- FM Tuner reception may vary in different areas.
- ▶ While in Preset mode, auto scan and auto memory functions are not available.
- ▶ When the player doesn't have any preset stations, EMPTY will be displayed at preset mode then fade out.
- Press the PLAY/STOP button to turn the player off. STEREO









RECORDING EXTERNAL AUDIO SOURCE

To stop recording

Press the MODE/REC button. MODE READY RECORD Remain time 01:02:00 MONO 32KHz 32KBPS

To play a recorded file

Press the PLAY/STOP button.



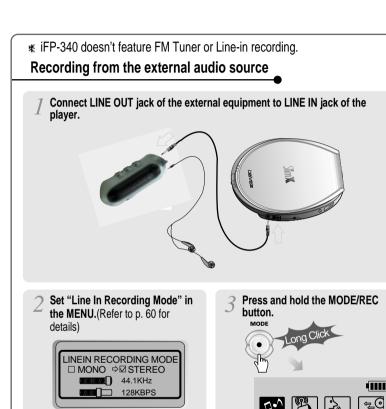
To pause voice recording

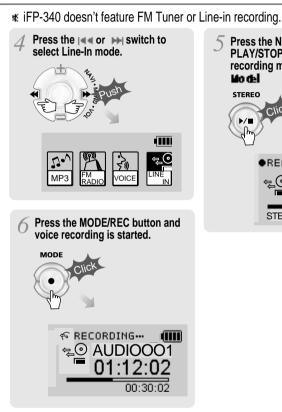
Press ▶/■ button during recording.

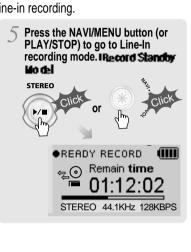
Press ▶/■ button again to restart recording.

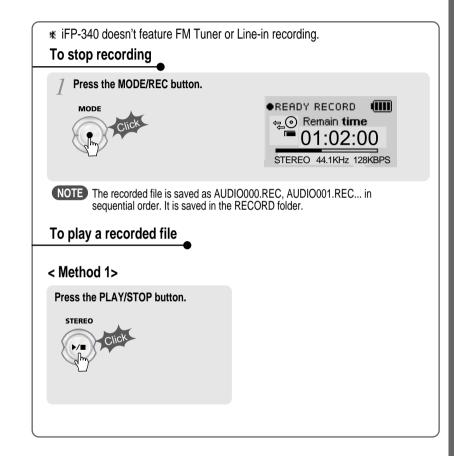
NOTE

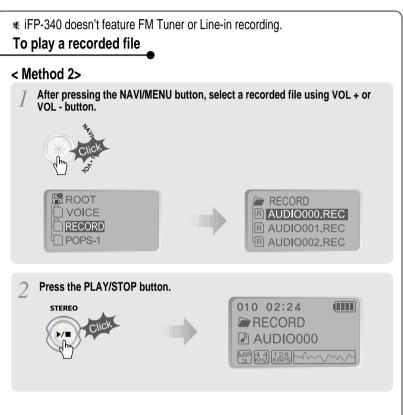
- The recorded file is saved as VOICE000.REC in the VOICE folder.
- If "00:00:00" is displayed on the LCD, the player's memory is full. To record, delete files and/or folders on the player to make some space available. (Refer to page 11, 26)
- Keep the player far enough away from the source to avoid distortion in the recording.

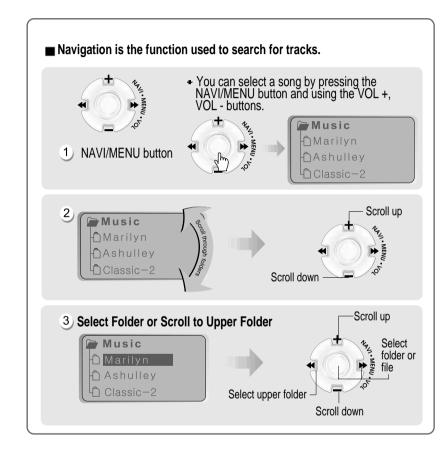










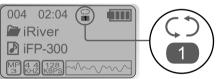


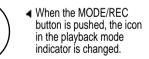


MODE (Playback Mode)

You can set various Repeat and Shuffle options by choosing these selections under Mode.

Please refer to the function controls (page 61) for user-defined configuration.





■ REPEAT

1	Play a single track repeatedly.
D	Play all tracks in the folder and stop.
	Play all tracks in the folder repeatedly.
A	Play all tracks in the player repeatedly.

■ SHUFFLE

SFL	Randomly play all tracks in the player and stop.	
SFL 1	Play a single track repeatedly.	
SFL D	Randomly play all tracks in the folder and stop.	
SFL DA	Randomly play all tracks in the folder repeatedly.	
SFL A	Randomly play all tracks in the player repeatedly.	

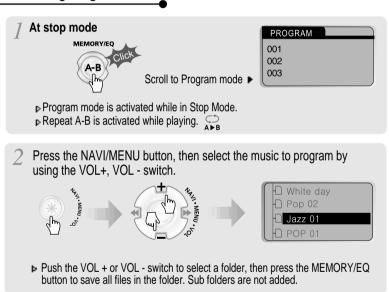
■ INTRO

INTRO: Plays the beginning 10 seconds of each track in sequential order. INTRO HIGHLIGHT: Plays 10 seconds from 1 minute into each track in sequential order. You can set this function in the MENU function.



Program mode: Create your own playlists.

Activating Program mode

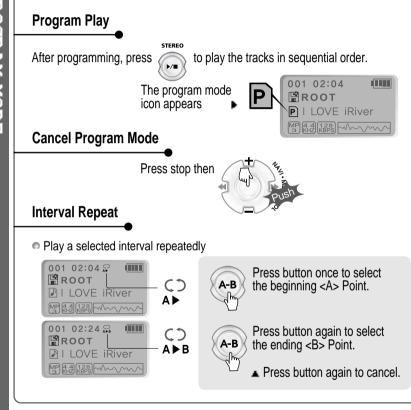


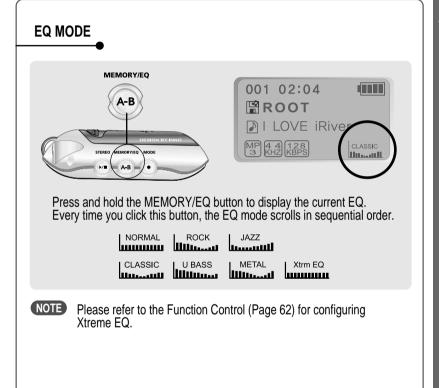


To remove files from the program list.

Press the MODE/REC button after selecting the file to be deleted using the MEMORY/EQ button. The program list is automatically changed.

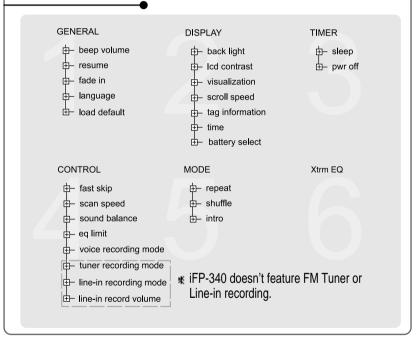
■ To delete all programmed songs, press MEMORY/EQ button for a while.





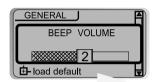
Menu is subject to change with different firmware versions. Users can configure their own settings.

CONFIGURATION



MENU OPERATION

- Press and hold the NAVI/MENU button to display the menu system.
- It is composed of 6 main menus with submenus.



When you select a sub menu, you can set your preference to be displayed.

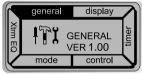
■ Shift between Menus

Press the | a or | button to move between main menu and sub menu.

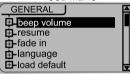
■ From Main Menu to Sub Menu



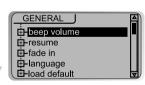
▼ MAIN MENU



▼ SUB MENU

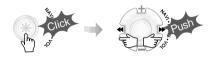


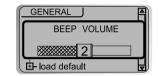


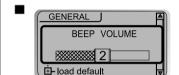


52

■ Enter Sub Menu







■ Three button markings are rather buried with this picture. Maybe enlarge or otherwise highlight those buttons, maybe use the "Hand" icon.



■ Exit Sub Menu



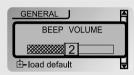
■ Exit Main Menu



GENERAL

■ BEEP VOLUME

: Set beep volume level. Set to "0" for OFF.



■ RESUME

: When ON, player resumes to previous place in song after STOP or Power OFF.

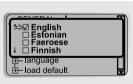


■ FADE IN

: When activated, volume increases gradually at playback mode to prevent sudden loudness.



■ LANGUAGE (Supports 39 languages)
: Song title and ID3 tag information for the MP3 files is dependent on the version of the PC operating system that was used to create it. (For example, if a MP3 files is created in a Korean version of Windows, the language setting should be Korean for proper title display)



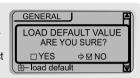
54

MENU(DISPLAY)

■ LOAD DEFAULT VALUE

: Initialize Menus to the original factory settings. Button operation order is as below.

Click NAVI/MENU (select default menu) → I◀ ◀ (select YES) → Click NAVI/MENU (select YES : Initialization)



DISPLAY

■ BACK LIGHT

: You can adjust the time that the Backlight stays on.

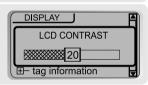
SEC: Backlight stays on from 0 to 30 seconds.
MINUTE: Backlight stays on from 0 to 30 minutes.
Press the NAVI/MENU button to set SEC/MINUTE.



■ LCD CONTRAST

: Adjust LCD contrast of remote control.

Contrast can be adjusted by using the and by buttons.



■ VISUALIZATION

: Can display the visualization of the audio signal in play mode, the elapsed time of a track, or the free space in memory.





■ SCROLL SPEED

Adjust scroll speed by 1x/2x/4x/Vertical/Horizontal.

Vertical: The scroll goes up and down Horizontal: The scroll goes from the left to the right.



■ TAG INFORMATION

On: Display track with ID3 tag information
Off: Display track with filename



TIME

Normal : display elapsed time. Remain : display remaining time.

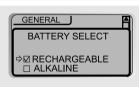
Note: If the track format is VBR, the time may not be accurate.



■ BATTERY SELECT

: Select the current battery.

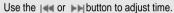
The player will manage the battery indicator icon to better match the usage level.



TIMER (SET AUTO POWER OFF)

■ SLEEP POWER OFF

: Automatically turns power off after a fixed time. (Time range can be set from 0 to 180 minutes by a minute)

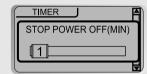


Set BEEP ON/ OFF by pressing the NAVI/MENU button.

▶ When the power is off, the sleep power off setting goes back to Zero setting.

■ STOP POWER OFF

: Automatically turns power off at stop mode. (Time range can be set from 1 to 60 minutes by a minute)



SLEEP POWER OFF(MIN)

BEEP □OFF ☑ON

□ON

TIMER

☑OFF

Use the Iss or Iss button to adjust time.

CONTROL

■ FAST SKIP OFF: Skip doesn't activate. 10 : Skip 10 tracks at time.

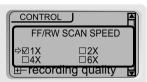
DIRECTORY: Skip to previous or next folder.

This defines the operating method of short or long click of | a or | b | lever.



■ FF/RW SCAN SPEED

The fast scan speed can range from 1x/2x/ 4x/6x.



■ SOUND BALANCE

Balance your sound to the right or left or keep it in the center according to your preference. When Sound Balance bar is moved to L (Left, 0), the sound outputs at the left earphone. When the lever is moved to R (Right, 40) the sound outputs at the right earphone. The default value is 20 and the sound outputs the same level at both earphones.



■ EQ LIMIT

ON: Limit the control of equalizer frequency to prevent distortion of sound.

OFF: You can enjoy original sound though distortion of sound may occur.



■ VOICE RECORDING MODE

You can adjust recording quality when recording Voice.

Bit Rate: 8Kbps~160Kbps

Sampling Frequency: 11.025KHz ~44.1KHz



ON: When recording voice, the recording level is automatically controlled and the sound from a long distance is normally recorded.

OFF: AGC Control not activated.

* iFP-340 doesn't feature FM Tuner or Line-in recording.



You can adjust recording quality when recording from the FM Tuner.

Bit Rate: 8Kbps~320Kbps

Sampling Frequency: 11.025KHz ~44.1KHz



■ LINE-IN RECORDING MODE

You can adjust recording quality when recording from External equipment.

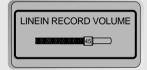
Bit Rate: 8Kbps~320Kbps

Sampling Frequency: 11.025KHz ~44.1KHz



■ LINE-IN RECORDING VOLUME

You can adjust recording level when recording from External equipment. (You can set from 0 to 64.)



■ Setting the Recording Mode

- Voice recording mode/Tuner recording mode/Linein recording mode



1. Select Recording Mode to 2. Press the NAVI/MENU button 3. Set or select AGC ON/AGC repeatedly to select item(AGC ON/AGC OFF. Mono/Stereo.

OFF, MONO/STEREO, Sample rate or Bit rate using or Sample rate or Bit rate) to set. ▶▶I button.

4. Push the VOL - lever to EXIT repeatedly.

CAUTION You can not record when battery indicator is blinking indicating a low battery.

MODE (PLAYBACK MODE)

■ REPEAT MODE / SHUFFLE MODE

: A number of Repeat and Shuffle modes are available. Select the one you want by pressing MODE button (Multi selecting available)

▼ How to select







button for selection.





▶ Only the selected play mode will be available when you press the MODE/REC button (For details, please refer p. 46~47)

■ INTRO MODE

Intro: Plays the beginning 10 seconds of each

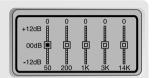
Intro Highlight: Plays 10 seconds from 1 minute into each track in sequential order.



Xtreme EQ

Xtreme EQ
You can adjust the sound to your preference.

There are 5 band frequency steps, set from -12dB to +12dB by 3dB step.



■ HOW TO SET Xtreme EQ

1. Select the Frequency step to set using the 144 or >>> button



2. Adjust the level using the VOL + or VOL - button.



3. To exit Xtreme EQ setting



INSERTING A BATTERY

Open the battery cover.



Close the battery cover.



Insert the battery.
Be sure to match the + and ends of the battery with the
diagram inside the battery
compartment.



NOTE

- To avoid corrosion, remove the battery if the player is not to be used for a long time.
 Remove dead battery immediately to avoid damage from corrosion.
 When corrosion occurs, wipe the battery compartment immediately with a dry cloth and insert a new battery.

 Should any problem persist after you have checked these symptoms, consult your iRiver dealer or contact support at iRiver.com.

,			
No Power	Check whether the battery have been inserted properly. Check whether the HOLD switch on the player is ON (Switch to OFF position) Insert a fresh battery.		
No sound is heard from the player or distortion is heard during playback.	 Check whether VOLUME is set to "0". Connect the earphones/remote plug firmly. Check whether plug is dirty. Clean the plug with a dry and soft cloth. Corrupted MP3 or WMA files may make a static noise and the sound may cut off. Listen to your files on the PC to see if they are corrupted. 		
Characters in LCD are corrupted.	◆ Check out Menu → Display → Language and confirm whether the right language has been selected.(Refer to page 55)		
Poor FM Reception.	 Adjust the position of the player and earphones. Turn off the power of other electric devices near the player. The Earphone cord functions as the antenna, they must be plugged in for best reception. 		
Failed download of MP3 file	Check the condition of the battery. Check the connection between your computer and the player to ensure that the cable is secure. Check the Manager program to make sure it is operating. Check whether the player's memory is full.		

SAFETY

Avoid dropping or impacting the player.

The player is designed to operate while walking or running, but dropping or excessively impacting the player maybe cause damage.

Avoid contacting the player with water.

Damage to the internal parts of the player may occur if the player comes into contact with water. If your player gets wet, dry the outside with a soft cloth as soon as possible.

■ Remove the battery if player is unused for long periods of time.

Battery left in the player for a long time can corrode and damage the device.

ON HEADPHONES AND EARPHONES

■ Road Safety

Do not use headphones/earphones while driving, cycling, or operating any motorized vehicle. It may create a traffic hazard and is illegal in some areas. It can also be potentially dangerous to play your headsets at high volume while walking, especially at pedestrian crossings. You should exercise extreme caution or discontinue use in potentially hazardous situations.

■ Preventing hearing damage

Avoid using headphones/earphones at high volume. Hearing experts advise against continuously loud and extended play. If you experience a ringing in your ears, reduce volume or discontinue use.

■ Consideration for others

Keep the volume at a moderate level. This will allow you to hear outside sound and to be considerate of the people around you.



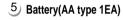
2) USB cable

3) Installation CD





4) User Manual/ Warranty card



6 Neck strap for carrying







7 Carrying Case (Not included with iFP-340, iFP-380T)

8 Arm Band (Not included with iFP-340, iFP-380T)









Accessories subject to change without notice and may vary from image shown.

■ Distributing copies of MP3 tracks without permission is a violating of international copyright law.

Memory	64MB	128MB	256MB	512MB
Model No.	iFP-340	iFP-380T	iFP-390T	iFP-395T
Tuner	NO	INCLUDED	INCLUDED	INCLUDED
MP3 Direct Encoding	NO	INCLUDED	INCLUDED	INCLUDED

Category	ITEM	Specifications			
	FM Frequency range	87.5 MHz ~ 108 MHz			
FM TUNER	Headphone Output	(L)12 mW + (R)12 mW (16 Ohm) max. Volume			
I FINI TONER	S/N ratio	50 dB			
	Antenna	Headphone/Earphone-Cord Antenna			
Dimension		91 x 35 x 26.7 mm			
Weight		Approx. 35 g (without Battery)			
		Approx. 55 g (with Battery)			
Battery		1 AA size Alkaline battery			
	Frequency range	20 Hz ~ 20 KHz			
Audio	Headphone Output	(L)12 mW + (R)12 mW (16 Ohm) max. Volume			
	S/N ratio	90 dB(MP3)			
FILE	File Type	MPEG 1/2/2.5 Layer 3, WMA, ASF			
SUPPORT	Bit Rate	8 Kbps ~ 320 Kbps			
	Tag Info	ID3 VI, ID3 V2 2.0, ID3 V2 3.0, ID 3 V2 4.0			
MP3 Encoding		MPEG 1 / 2 / 2.5 Layer3			
LCD		Full Graphic 4 Line with Backlight			
Language		39 Languages			
Voice Recording		Approx. 18:20 hrs Approx. 36:00 hrs Approx. 72:00 hrs Approx. 144:00 hrs (8kbps, 64 MB) (8kbps, 128 MB) (8kbps, 256 MB) (8kbps, 512 MB)			
Max. Playtime		Approx. 24 hours(128 kbps, MP3, Volume : 20, EQ Normal)			
USB		USB 1.1			
Operational Temperature		 5 degrees ~ 40 degrees Celsius 			

